

Testimony of Gary Milhollin

Professor Emeritus, University of Wisconsin Law School
and
Director, Wisconsin Project on Nuclear Arms Control

Before the Committee on Armed Services
United States Senate
March 23, 2000

I am pleased to appear before this distinguished committee to testify on the Export Administration Act. I would like to begin by submitting three items for the record. The first is an article on supercomputer export controls that I published in the *Outlook* section of the *Washington Post* on March 12, the second is an article on Iraqi procurement efforts that I published in the *New Yorker* magazine on December 13, 1999 and the third is a report entitled "25 Myths about Export Control" that my organization prepared a few years ago but which is still relevant to the issues we face today.

I will direct my remarks to S. 1712, the bill recently reported by the Senate Committee on Banking, Housing and Urban Affairs. In my judgment, if this bill were enacted it would overturn and to a great extent nullify the system of export controls that the United States has built up over the past half-century. Our present export law attempts to strike a balance between national security and freedom of trade. S. 1712 clearly does not. Instead, it is a list of provisions advocated by commercial interests that have long opposed any form of export control. It would be more accurate to call the bill in its present form the "Export Decontrol Act."

S. 1712 decontrols items used to make nuclear weapons and long-range missiles

1. Nuclear weapon triggers

For at least twenty years, the United States has controlled for export the high-precision electronic switches needed to detonate nuclear weapons. These are key components in a nuclear weapon's firing circuit and are popularly known as nuclear weapon triggers. In 1998, Iraq tried to provide itself with a supply of these switches under the guise of medical equipment. Iraq is allowed to import medical equipment despite the U.N. embargo, so Iraq bought a half dozen machines called lithotripters to rid its citizens of kidney stones. The lithotripter pulverizes kidney stones inside the body without surgery. But each machine must be triggered by the same high-precision switch that triggers a nuclear weapon. Iraq tried to buy 120 extra switches as spare parts.

Iraq ordered the machines and switches from Siemens, in Germany, which sold the machines but passed the spare parts order to Thomson in France. The French government barred the sale. Siemens says that Iraq did get one switch with each machine and two more as spares, but to get any additional switches, Iraq will have to turn in a used switch for each new one and will have to allow the United Nations to inspect the use of the machines. The switches were controlled for export because they are on the control list of the Nuclear Suppliers Group, an international regime to which France, Germany and the United States belong.

These switches, however, appear to have a mass market status under S. 1712, and would be removed from the National Security Control List. The switches meet all the criteria listed in Section 211 of the bill, and the bill says that the Secretary of Commerce shall remove them if they meet the criteria. They meet the criteria as follows:

- They are available for sale in a large volume to multiple purchasers, because they are used in radar, lasers and rockets as well as lithotripter machines and are advertised on the Internet by manufacturers in a number of different countries;
- They are widely distributed through normal commercial channels, because they are sold by the thousands each year, including the hundreds sent to hospitals to keep lithotripter machines running;
- They are conducive to shipment and delivery by generally accepted commercial means of transport, because they are small and easy to handle;

- They may be used for their normal intended purpose without substantial and specialized service provided by the manufacturer, because they need only to be connected into an electrical circuit by attaching the appropriate wires.

Any bill that decontrols nuclear weapon triggers must be seen as seriously flawed.

Despite the fact that these items are available in great volume inside the countries that produce them, they are not easily available to countries that are trying to make nuclear weapons. The reason is export controls. If the United States were suddenly to decontrol them, it would dismay our allies and destroy our credibility on nuclear nonproliferation.

There are a number of other nuclear and missile items that would have a mass market status under this bill, despite the fact that they have long been controlled for export and are extremely useful for making nuclear weapons and long-range missiles.

2. Glass and carbon fibers

Glass and carbon fibers are used widely in ballistic and cruise missiles. They are used in solid rocket motor cases, interstages, wings, inlets, nozzles, heat shields, nosetips, structural members, and frames. Composites reinforced by carbon or glass fibers can also be used to form the high speed rotors of gas centrifuges used to enrich uranium for nuclear weapons. Fiber parts are often lighter, stronger, and more durable than parts made of metal. They are used in skis, tennis racquets, boats and golf clubs. They are produced in China, Denmark, France, Germany, Israel, Japan, Russia, South Africa, Sweden, the United Kingdom and the United States. They have been controlled for export since January 1981.

They also meet all the criteria for a mass market status under Section 211:

- They are available for sale in a large volume to multiple purchasers, because they are advertised on the Internet and can be ordered in large quantities by anyone;
- They are widely distributed through normal commercial channels, because they are shipped in large quantities to manufacturers of sporting goods;
- They are conducive to shipment and delivery by generally accepted commercial means of transport, because they do not require special handling except for refrigeration in some cases;
- They may be used for their normal intended purpose without substantial and specialized service provided by the manufacturer, because they can be incorporated in manufacturing processes in the form received.

In 1988, a California rocket scientist was arrested in Baltimore as he tried to illegally load 420 pounds of carbon fibers on a military transport plane bound for Cairo. The material was intended for the ballistic missile that Egypt was developing with Argentina and Iraq. The scientist was sentenced in June 1989 to 46 months in prison. It would be a big surprise to the world if the United States now decontrolled this material.

3. Maraging steel

Maraging steel is a high-strength steel used to make solid rocket motor cases, propellant tanks, and interstages for missiles. It is also used to make the high-speed rotors in gas centrifuges, which are used to enrich uranium for nuclear weapons. In 1986, a Pakistani-born Canadian businessman tried to smuggle 25 tons of this steel out of the United States to Pakistan's nuclear weapon program. He was sentenced to prison as a result. Maraging steel has been controlled for export since January 1981.

This steel is produced by companies in France, Japan, Russia, Sweden, the United Kingdom and the United States and it meets all the criteria for mass market status. Several steel companies list maraging steel on the Internet and can produce maraging steel in multi-ton quantities. Over the telephone, two American

companies and one British company explained to my staff how to order 25 ton quantities with delivery in less than a month. Maraging steel is bundled and shipped much like stainless steel, which it closely resembles.

4. Corrosion resistant valves

These special valves are essential components in plants that enrich uranium to nuclear weapon grade. Both Iraq and Iran are hoping to build such plants, and will need these valves in great numbers. The valves are able to resist the corrosive gas used in the enrichment process.

These same valves are also used in the chemical, petrochemical, oil and gas, fossil power, pulp and paper, and cryogenic industries. Their size can range from very large gate valves down to tiny globe valves used in instrument and control lines. They are manufactured by companies in Australia, Japan, Russia, the United Kingdom and the United States. Smaller corrosion resistant valves have been controlled for export since October 1994, and larger valves have been controlled since October 1981.

These valves fit all of the criteria for Amass market status.@ They are advertised on the Internet and are widely available to American buyers. A quick survey this week by my organization revealed that dozens of companies make them and sell them in the hundreds per year. They would therefore be decontrolled under Section 211, to the great delight of Iraq and Iran.

These are only four of the sensitive items that would meet the Amass market@ definition of the bill. There are surely many others.

Many of these sensitive items would also have Aforeign availability status@ under Section 211 because they are manufactured and sold by a number of foreign companies. In fact, the definition of this term is so sweeping that it appears to cover anything that a controlled country can manage to buy from any supplier in the world. If Iran or Pakistan or Syria can buy a nuclear weapon component or a missile component or a piece of sensitive equipment from China, Russia or North Korea, then this bill says that our industry must be free to sell the same thing.

Indeed, when one reads Section 211 carefully, it would seem that even rocket motors would have Aforeign availability status.@ Under the bill=s criteria, North Korean rocket motors:

- Are available to controlled countries from sources outside the United States;
- Can be acquired at a price that is not excessive;
- Are available in sufficient quantity so that the requirement of a license or other authorization with respect to the export of such item is or would be ineffective.

Today, Egypt, Iran, Syria and Pakistan are importing these rocket motors in sufficient quantities without any trouble. Requiring a U.S. license for their sale would obviously be ineffective. Under the literal terms of the bill, they appear to have foreign availability status. One could argue that a rocket motor is not a dual-use item, but these motors can be used for civilian space launchers as well as missiles. Unfortunately the bill, whose main object is to control the export of dual-use items, does not define the term.

Any bill that decontrols rocket motors should be viewed with suspicion.

S. 1712 would end American leadership on export controls

Many of the provisions of S. 1712 are based on the same principle that children use to excuse their misbehavior: Another people are doing it. Industry has managed to persuade the Banking Committee that if another country sells something, so should we. What would happen if this idea were put into practice?

First, we should remember the Scud missiles that Iraq launched against Israel during the Gulf War. Those missiles were supplied by Russia and enhanced by Germany. There were German logos on missile parts found in Tel Aviv. Would our industry be happier if there had been American logos on those parts?

Second, we should remember that the same enhanced Scuds killed American troops sleeping in their barracks in Saudi Arabia. Would our industry be proud of providing the parts that enhanced the range of those missiles?

Third, we should remember that Germany sold entire, turn-key poison gas plants to Libya and Iraq in the 1980s. These were dual-use facilities for making pesticides but they turned out to be for two-legged flies. Would our companies be happier if they had supplied those plants?

Fourth, we should consider that China is now selling missile equipment to Pakistan and selling poison gas equipment to Iran. These items have foreign availability written all over them. Does our industry believe it should share in these sales?

By tying U.S. law to that of other countries, U.S. export controls could be no stronger than those of the most lax foreign supplier. It would then be impossible for the United States to play its leadership role. We would be following the lowest common denominator. The effect would be to reverse a foreign policy stance the United States has maintained for over forty years. It would be an historic abandonment of America's moral leadership.

It is essential for the United States to be able to adopt strong controls first, and then persuade other countries to follow its example the method by which every export control agreement since World War II has been created. U.S. diplomats are using this strategy today to help create export controls in the former East Bloc.

Congress should give the President broad authority to control the export of any dual-use item that is judged relevant to the national security of the United States. The national security should be taken to include combating the proliferation of weapons of mass destruction and maintaining the military advantage that the United States now enjoys. The President should not be limited to controlling only what other countries control.

S. 1712 reduces the power of the national security agencies

Under Section 202 of this bill, the Secretary of Defense would lose his existing power to put an item on the National Security Control List. Only the Secretary of Commerce would have that power. The Secretary of Defense has the right to be consulted, but that could only allow the Pentagon to keep an item off the

list that the Commerce Department wants to put on it. Since Commerce has always wanted to control as few items as possible, this is a meaningless concession.

Section 211 also allows the Secretary of Commerce to take an item off the list after consulting with the Secretary of Defense, but does not allow the Secretary of Defense to prevent an item from being deleted.

The effect of these provisions is to give the Commerce Department sole power to decide what is controlled for export and what is not. The Secretary of Commerce can **and no doubt will** rewrite the entire National Security Control List without any real restraint by the national security agencies. This is the exact reverse of what the process should be.

The Defense, Energy and State Departments house the experts who understand how dual-use equipment operates and what the risks are if such equipment is diverted for military purposes. They also know which countries and companies in the world are most likely to divert it. These experts are not at the Commerce Department. In order to bring the maximum amount of government expertise to bear upon export control decisions, the qualified personnel at the national security agencies must be able to decide what is controlled and who is allowed to buy it.

But this bill gives the Commerce Department more influence than any other agency. In addition to deciding what will be controlled, Commerce will chair the most important export control committees and will use its administrative preeminence to influence the outcome of licensing decisions.

I hope that this subcommittee will examine carefully the testimony given last June by Dr. Peter Leitner before the Senate Committee on Governmental Affairs. Dr. Leitner, who is a Senior Strategic Trade Advisor at the Department of Defense, explained how the influence of technical experts from the national security agencies has been diluted by making them subordinate to a committee of non-specialists chaired by the Department of Commerce.

Congress should ensure that no license application is approved unless all the national security agencies concur. It makes no sense to allow cases to be escalated to the political level where the judgments of national security experts can be

reversed by political considerations. If a national security agency takes a stand in opposition to an export application at the expert level, the case should end there.

Instead of being like poor relatives invited to dinner, the national security agencies should be put at the head of the table. Each interagency committee should be chaired by a national security agency. There is no reason to give this function to the Commerce Department, which has the least expertise in the subject matter. And the power to decide what to put on the control list should also be given to the national security agencies. Either the State or the Defense Department should be given the lead in formulating the export control list, with help from the Department of Energy for nuclear items. If export control is going to be a strategic question, instead of a trade question, then the strategic experts should be put in charge of it. This is the only division of labor that makes sense.

Let us also not forget that the Commerce Department is burdened by a conflict of interests. It must promote exports as well as regulate them. The promotion function has always dominated, and has always caused the Commerce Department to champion the exporters' point of view. As long as the Commerce Department is in charge of administering the export control laws, national security will take a back seat to trade interests.

Congress should consider transferring jurisdiction over all dual-use licensing to the State Department, for essentially the same reasons that it just transferred jurisdiction over satellites. The Commerce Department is simply not a trustworthy guardian of U.S. national security.

The State Department already handles munitions licenses with the help of the Department of Defense. In the most recent fiscal year, State's Office of Defense Trade Controls reviewed more than 44,000 licenses with a staff of about 55 persons. State could be provided additional staff to handle the 10,000 applications that now go to the Commerce Department.

S. 1712 effectively prevents the President from setting aside a decision to decontrol

S. 1712 effectively takes away the President's ability to keep controls in place. The bill provides that the Secretary of Commerce shall determine that an item has mass market or foreign availability status if the item meets the criteria in Section 211. The Secretary must then decontrol the item.

The only way to retain control is for the President to make a special finding within 30 days that exporting the item would prove detrimental to the national security of the United States. That finding would be impossible to make unless the President could foresee which country would buy the decontrolled item and how the country would use it against the United States. No President can foresee that. And even if the President could foresee it, he could still not stop the export unless there were a high probability that foreign supply of the item could be cut off. Is there a high probability that North Korea can be persuaded to stop exporting rocket motors?

When one combines the foreign availability and mass market criteria in this bill, it is hard to see what would be left on the control list.

These defects are not cured by Section 201(c), which allows controls on items that could materially contribute to the proliferation of weapons of mass destruction. This section, in fact, would appear to put the United States in violation of the Nuclear Nonproliferation Treaty. Article one of the treaty obliges the United States not in any way to assist a non-nuclear-weapon state in acquiring nuclear weapons. There is no materiality exception in the treaty. A series of U.S. exports, each of which standing alone would not be material, would violate the treaty if the exports in any way assisted a nuclear weapon effort. The term material is so vague that the Commerce Department could interpret it quite broadly.

S. 1712 would have no significant impact on American jobs

It is important to recognize that export control is not a jobs issue. Export controls do not have a significant or measurable effect on employment. Less than two tenths of one percent of the American economy is affected by dual-use export controls. And more than 90% of licensing applications are approved. Only a few hundred million dollars worth of applications are denied each year which amounts to less than one hundredth of one percent of the U.S. economy. Reducing export

controls will not stimulate the U.S. economy; it will only stimulate the proliferation of weapons of mass destruction.

It is also important to realize that export controls are only a shadow of what they were during the cold war. Since 1989, applications to the Commerce Department have dropped by roughly 90%. Cases have fallen from nearly 100,000 in 1989 to about 10,000 in 1998. The reason is simple: fewer items are controlled, so fewer applications are required. Nor does export licensing take much time. The Commerce Department is meeting its licensing deadlines for 97% of its applications.

Instead of trying to cut export controls further, we now need to strengthen controls to combat proliferation, the main threat of the post-cold war era. The spread of weapons of mass destruction, rather than competition with the Soviet Union, is now the foremost strategic threat to the United States. Because mass destruction weapons are built mainly with dual-use equipment, the control of dual-use exports is of vital military and strategic importance. Rather than being viewed as commercial transactions with a military aspect, as they were during the cold war, dual-use exports must now be regarded as deeply affecting U.S. national security. It is illogical to say that the cold war is over and therefore proliferation is the main international threat, and at the same time say that export controls, which are essential to contain that threat, should be reduced.